

WHAT IS CLAIMED IS:

1                   1.       An air conditioner control device (6) which controls an air conditioner  
2 (51) in accordance with a speech-based instruction, comprising:

3                       means (6) which detects an operational status of an external device (5)  
4 including said air conditioner (51) in response to input of said speech-based instruction; and  
5                       means (6) which controls not only said air conditioner (51) but also devices  
6 (52, 53, 54, and 55) other than said air conditioner device in such a way that a condition  
7 desired by an utterer of said speech is obtained based on an operational status detected by  
8 said operational status detection means.

1                   2.       An air conditioner control device (6) which controls an air conditioner  
2 (51) in accordance with a speech-based instruction, comprising:

3                       means (6) which detects operational statuses of said air conditioner (51) and a  
4 window in response to input of said speech-based instruction; and  
5                       means (6) which controls not only said air conditioner (51) but also an  
6 operation of closing said window in such a way that a condition desired by an utterer of said  
7 speech is obtained when an operational status detected by said operational status detection  
8 means indicates that the window is open.

1                   3.       An air conditioner control device comprising:

2                       speech recognition means (2) which acquires speech data representing a  
3 speech, and specifies a candidate of a phrase represented by said speech by performing  
4 speech recognition on said speech data; and

5                       air conditioner control means (6) which specifies a variable to be changed for  
6 obtaining a condition desired by an utterer of said speech and/or a direction in which said  
7 variable should change, based on a candidate specified by said speech recognition means (2),  
8 environmental data indicating a condition of an environment under which a conditioning by  
9 an external air conditioner (51) is performed and/or operational status data indicating an  
10 operational status of said air conditioner (51), and controls said air conditioner (51) in such a  
11 way that a specified variable changes in a specified direction.

1                   4.       The air conditioner control device according to claim 3, wherein said  
2 air conditioner control means (6) further controls devices (52, 53, 54, and 55) other than said  
3 air conditioner (51),

4 specifies a device (5) to be controlled to change a variable to be changed for  
5 obtaining a condition desired by an utterer of said speech based on a candidate specified by  
6 said speech recognition means (2), said environmental data, and/or said operational status  
7 data, and controls a specified device (5) in such a way that a specified variable changes in a  
8 specified direction.

1 5. The air conditioner control device according to claim 3 or 4, wherein  
2 said air conditioner control means (6) has:

3 means (6) which discriminates whether or not the utterer of said speech feels  
4 comfortable with a current condition based on a candidate specified by said speech  
5 recognition means (2), and stores a condition indicated by environmental data to be supplied  
6 at a time when it is discriminated that the utterer feels comfortable; and

7 means (6) which discriminates whether or not the utterer of said speech desires  
8 to obtain a condition with which the utterer felt comfortable in the past based on a candidate  
9 specified by said speech recognition means (2), and upon determination that the utterer  
10 desires, refers locally stored past environmental data, specifies a variable to be changed for  
11 obtaining a condition indicated by the referred past environmental data and/or a direction in  
12 which said variable should change, and controls said air conditioner (51) in such a way that a  
13 specified variable changes in a specified direction.

1 6. An air conditioner control apparatus comprising:  
2 air conditioner control means (6) which specifies a variable to be changed to  
3 obtain a desired condition and/or a direction in which said variable should change, and  
4 controls an external device (5) including an air conditioner (51) in such a way that a specified  
5 variable changes in a specified direction; and

6 simulation means (6) which executes a simulation regarding a shift of a  
7 condition under a control being executed by said air conditioner control means (6),

8 wherein said air conditioner control means (6) discriminates whether a  
9 conditioning method should be changed or not based on a result of said simulation and  
10 environmental data indicating a condition of an environment under which a conditioning by  
11 said air conditioner (51) is performed, and upon discrimination that it should be changed,  
12 outputs a message urging a change of the conditioning method or changes a mode of a control  
13 of said device (5).

1                   7.       An air conditioner control method of an air conditioner control device  
2 (6) which controls an air conditioner (51) in accordance with a speech-based instruction,  
3 comprising:

4                   a step of detecting an operational status of an external device (5) including  
5 said air conditioner (51) in response to input of said speech-based instruction; and

6                   a step of controlling devices (52, 53, 54, and 55) other than said air  
7 conditioner device as well as said air conditioner (51) in such a way that a condition desired  
8 by an utterer of said speech is obtained based on an operational status detected by said  
9 operational status detection means.

1                   8.       An air conditioner control method comprising:

2                   a speech recognition step of acquiring speech data representing a speech, and  
3 specifying a candidate of a phrase represented by said speech by performing speech  
4 recognition on said speech data; and

5                   an air conditioner control step of specifying a variable to be changed for  
6 obtaining a condition desired by an utterer of said speech and/or a direction in which said  
7 variable should change, based on a candidate specified by said speech recognition step,  
8 environmental data indicating a condition of an environment under which a conditioning by  
9 an external air conditioner (51) is performed and/or operational status data indicating an  
10 operational status of said air conditioner (51), and controlling said air conditioner (51) in such  
11 a way that a specified variable changes in a specified direction.

1                   9.       An air conditioner control method comprising:

2                   an air conditioner control step of specifying a variable to be changed to obtain  
3 a desired condition and/or a direction in which said variable should change, and controlling  
4 an external device (5) including an air conditioner (51) in such a way that a specified variable  
5 changes in a specified direction; and

6                   a simulation step of executing a simulation regarding a shift of a condition  
7 under a control being executed by said air conditioner control means,

8                   wherein in said air conditioner control step, it is discriminated whether a  
9 conditioning method should be changed or not based on a result of said simulation and  
10 environmental data indicating a condition of an environment under which a conditioning by  
11 said air conditioner (51) is performed, and when it is discriminated that the conditioning

- 12 method should be changed, a message urging a change of the conditioning method is output,
- 13 or a mode of a control of said device (5) is changed.